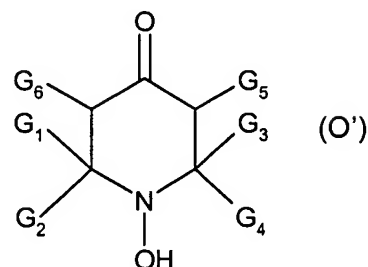
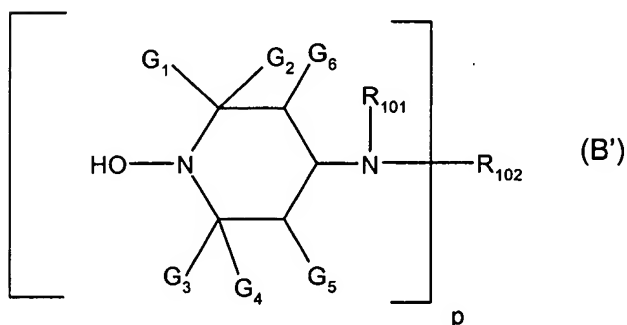
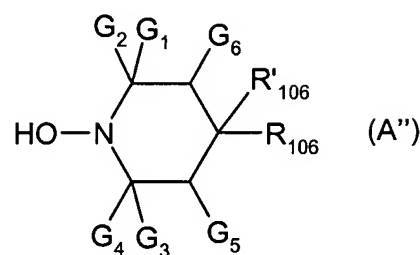
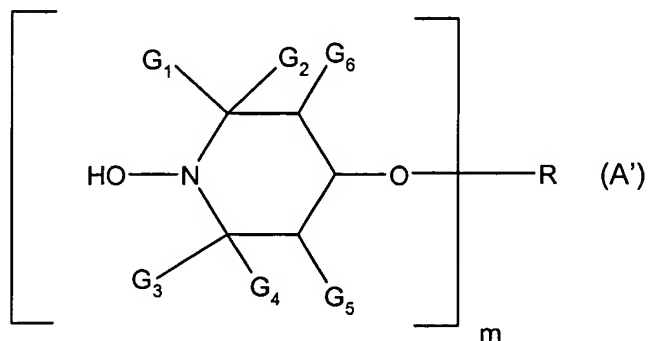


In the Claims

1-8. (canceled)

9. (previously presented) A polymerizable composition comprising

- a) an ethylenically unsaturated monomer;
- b) a radical polymerization initiator; and
- c) a hydroxylamine having a molecular weight of more than 250 g/mol of formula A', A'', B' or O'



wherein

m is 1,

R is hydrogen, C₁-C₁₈alkyl which is uninterrupted or interrupted by one or more oxygen atoms, cyanoethyl, benzoyl, glycidyl, a monovalent radical of an aliphatic carboxylic acid having 2 to 18 carbon atoms, of a cycloaliphatic carboxylic acid having 7 to 15 carbon atoms, or an α,β-unsaturated

carboxylic acid having 3 to 5 carbon atoms or of an aromatic carboxylic acid having 7 to 15 carbon atoms;

p is 1;

R₁₀₁ is C₁-C₁₂alkyl, C₅-C₇cycloalkyl, C₇-C₈aralkyl, C₂-C₁₈alkanoyl, C₃-C₅alkenoyl or benzoyl;

R₁₀₂ is C₁-C₁₈alkyl, C₅-C₇cycloalkyl, C₂-C₈alkenyl unsubstituted or substituted by a cyano, carbonyl or carbamide group, or is glycidyl, a group of the formula -CH₂CH(OH)-Z or of the formula -CO-Z or -CONH-Z wherein Z is hydrogen, methyl or phenyl;

R₁₀₆ and R'₁₀₆ together are both hydrogen, a group =O or =N-O-R₁₂₀ wherein

R₁₂₀ is H, straight or branched C₁-C₁₈alkyl, C₃-C₁₈alkenyl or C₃-C₁₈alkinyl, which may be unsubstituted or substituted by one or more OH, C₁-C₈alkoxy, carboxy

or C₁-C₈alkoxycarbonyl; or is C₅-C₁₂cycloalkyl or C₅-C₁₂cycloalkenyl;

or is phenyl, C₇-C₉phenylalkyl or naphthyl which may be unsubstituted or substituted by one or more C₁-C₈alkyl, halogen, OH, C₁-C₈alkoxy, carboxy or C₁-C₈alkoxycarbonyl;

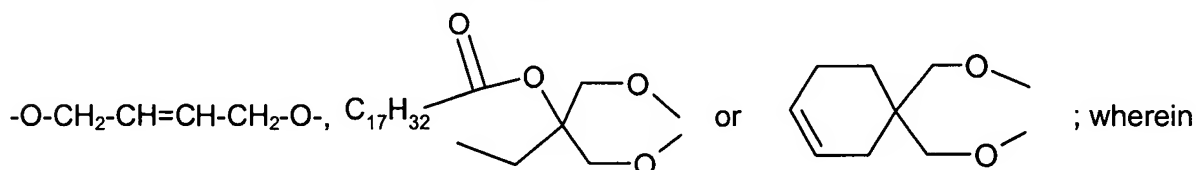
or is -C(O)-C₁-C₃₆alkyl, or an acyl moiety of a α,β -unsaturated carboxylic acid having 3 to 5 carbon atoms or of an aromatic carboxylic acid having 7 to 15 carbon atoms;

or is -SO₃⁻Q⁺, -PO(O⁻Q⁺)₂, -P(O)(OR₂)₂, -SO₂-R₂, -CO-NH-R₂, -CONH₂, COOR₂, or Si(Me)₃, wherein Q⁺ is H⁺, ammonium or an alkali metal cation; or

R₁₀₆ and R'₁₀₆ are independently -O-C₁-C₁₂alkyl, -O-C₃-C₁₂alkenyl, -O-C₃-C₁₂alkinyl, -O-C₅-C₈cycloalkyl, -O-phenyl, -O-naphthyl or -O-C₇-C₉phenylalkyl; or

R₁₀₆ and R'₁₀₆ together form one of the bivalent groups -O-C(R₁₂₁)(R₁₂₂)-CH(R₁₂₃)-O-,

-O-CH(R₁₂₁)-CH₁₂₂-C(R₁₂₂)(R₁₂₃)-O-, -O-CH(R₁₂₂)-CH₂-C(R₁₂₁)(R₁₂₃)-O-, -O-CH₂-C(R₁₂₁)(R₁₂₂)-CH(R₁₂₃)-O-, -O-o-phenylene-O-, -O-1,2-cyclohexylen-O-,



R₁₂₁ is hydrogen, C₁-C₁₂alkyl, COOH, COO-(C₁-C₁₂)alkyl or CH₂OR₁₂₄;

R₁₂₂ and R₁₂₃ are independently hydrogen, methyl ethyl, COOH or COO-(C₁-C₁₂)alkyl;

R₁₂₄ is hydrogen, C₁-C₁₂alkyl, benzyl, or a monovalent acyl residue derived from an aliphatic, cycloaliphatic or aromatic monocarboxylic acid having up to 18 carbon atoms;

G₆ is hydrogen and G₅ is hydrogen or C₁-C₄alkyl, and

G₁, G₂, G₃ and G₄ are methyl; or

G₁ and G₃ are methyl and G₂ and G₄ are ethyl or propyl or G₁ and G₂ are methyl and G₃ and G₄ are ethyl or propyl.

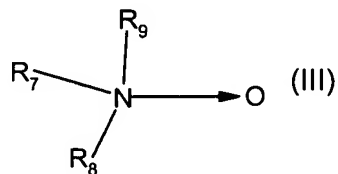
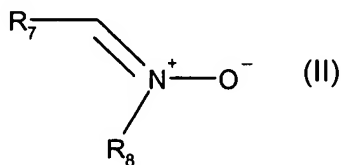
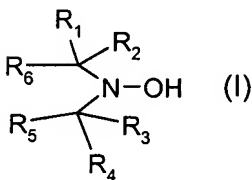
10. (canceled)

11. (previously presented) A process for preparing an oligomer, a cooligomer, a polymer or a copolymer (block, random or graft) by free radical polymerization of at least one ethylenically unsaturated monomer or oligomer, which comprises (co)polymerizing the monomer or monomers/oligomers in the presence of

b) a free radical initiator and

c) a hydroxylamine, a nitron or an alkyl N-oxid having a molecular weight of more than 250 g/mol,

where the hydroxylamine, the nitron or the alkyl N-oxid are of formulae (I), (II) or (III)



where

R₁, R₂, R₃ and R₄ are independently hydrogen, phenyl or C₁-C₄alkyl;

R₅ and R₆ are independently C₇-C₃₅alkyl, C₇-C₃₅alkenyl or C₇-C₃₅alkinyl, which may be unsubstituted or substituted by phenyl, halogen, NH₂, N(R₂₁)₂, -OH, -CN, -NO₂, or -COOR₂₁; or which may be interrupted by -O- or -C(O)-; or

R₅ and R₆ together are an alkylene bridge, which may be interrupted by a -O-, -C(O)- or a -N(C₁-C₁₈alkyl)- group to form a heterocyclic 5, 6, 7 or 8 membered ring, which may be further substituted by a -O-C(O)-]_nR₂₀, NR₂₁-C(O)-]_nR₂₀ or a ketal group;

n is 1 or 2; wherein, when n is 1, R₂₀ is hydrogen or C₁-C₁₈alkyl and, when n is 2, R₂₀ is

C₁-C₁₈alkylene; R₂₁ is hydrogen or C₁-C₁₈alkyl;

R₇ and R₈ are independently C₈-C₃₆alkyl; and

R₉ is C₁-C₄alkyl.

12. (previously presented) A process according to claim 11 wherein the polymer obtained has a polydispersity of between 1.1 and 2.5.

13. (previously presented) A process according to claim 11 wherein the polymerization is carried out by heating and takes place at a temperature of between 70°C and 160°C.

14. (original) A process according to claim 11 wherein the hydroxylamine, the nitron or the alkyl N-oxid having a molecular weight of more than 250 g/mol is present in an amount of 0.001 to 10 mol % based on the monomer or monomers.

15. (original) A process according to claim 11 wherein the weight ratio between the radical polymerization initiator and the hydroxylamine, the nitron or the alkyl N-oxid having a molecular weight of more than 250 g/mol is from 1:5 to 5:1.

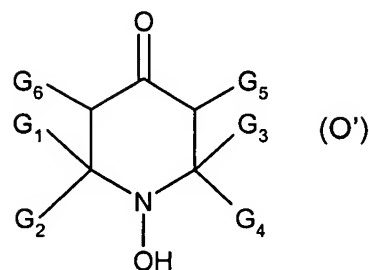
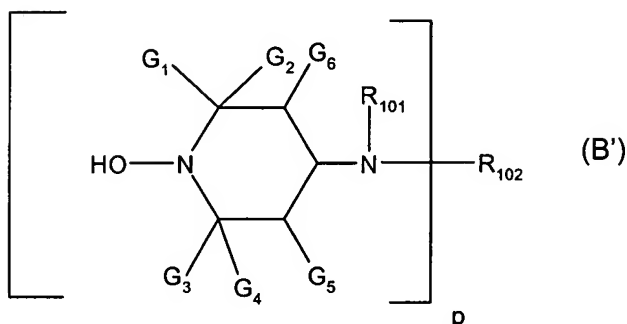
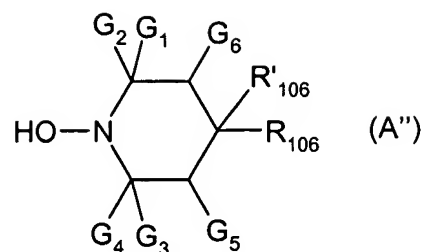
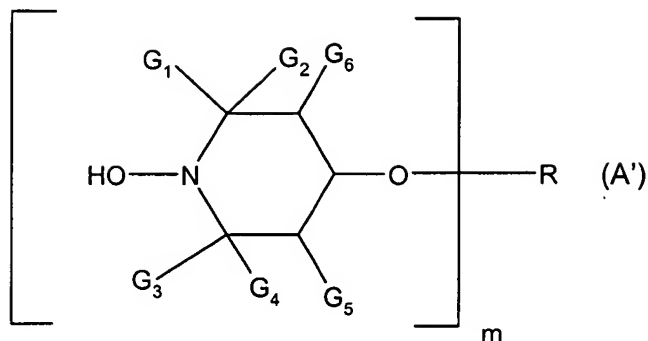
16. (canceled)

17. (canceled)

18. (previously presented) A process for preparing an oligomer, a cooligomer, a polymer or a copolymer (block, random or graft) by free radical polymerization of at least one ethylenically unsaturated monomer or oligomer, which comprises (co)polymerizing the monomer or monomers/oligomers in the presence of

b) a free radical initiator and

c) a hydroxylamine having a molecular weight of more than 250 g/mol of formula A', A'', B' or O'



wherein

m is 1,

R is hydrogen, C₁-C₁₈alkyl which is uninterrupted or interrupted by one or more oxygen atoms, cyanoethyl, benzoyl, glycidyl, a monovalent radical of an aliphatic carboxylic acid having 2 to 18 carbon atoms, of a cycloaliphatic carboxylic acid having 7 to 15 carbon atoms, or an α,β-unsaturated carboxylic acid having 3 to 5 carbon atoms or of an aromatic carboxylic acid having 7 to 15 carbon atoms;

p is 1;

R₁₀₁ is C₁-C₁₂alkyl, C₅-C₇cycloalkyl, C₇-C₈aralkyl, C₂-C₁₈alkanoyl, C₃-C₅alkenoyl or benzoyl;

R₁₀₂ is C₁-C₁₈alkyl, C₅-C₇cycloalkyl, C₂-C₈alkenyl unsubstituted or substituted by a cyano, carbonyl or carbamide group, or is glycidyl, a group of the formula -CH₂CH(OH)-Z or of the formula -CO-Z or -CONH-Z wherein Z is hydrogen, methyl or phenyl;

R₁₀₆ and R'₁₀₆ together are both hydrogen, a group =O or =N-O-R₁₂₀ wherein

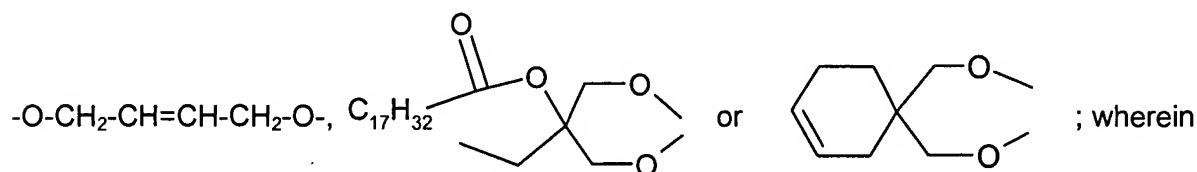
R₁₂₀ is H, straight or branched C₁-C₁₈alkyl, C₃-C₁₈alkenyl or C₃-C₁₈alkinyl, which may be unsubstituted or substituted by one or more OH, C₁-C₈alkoxy, carboxy or C₁-C₈alkoxycarbonyl; or is C₅-C₁₂cycloalkyl or C₅-C₁₂cycloalkenyl; or is phenyl, C₇-C₉phenylalkyl or naphthyl which may be unsubstituted or substituted by one or more C₁-C₈alkyl, halogen, OH, C₁-C₈alkoxy, carboxy or C₁-C₈alkoxycarbonyl;

or is $-\text{C}(\text{O})-\text{C}_1-\text{C}_{36}\text{alkyl}$, or an acyl moiety of a α,β -unsaturated carboxylic acid having 3 to 5 carbon atoms or of an aromatic carboxylic acid having 7 to 15 carbon atoms;

or is $-\text{SO}_3^-\text{Q}^+$, $-\text{PO}(\text{O}^-\text{Q}^+)_2$, $-\text{P}(\text{O})(\text{OR}_2)_2$, $-\text{SO}_2-\text{R}_2$, $-\text{CO}-\text{NH}-\text{R}_2$, $-\text{CONH}_2$, COOR_2 , or $\text{Si}(\text{Me})_3$, wherein Q^+ is H^+ , ammonium or an alkali metal cation; or

R_{106} and R'_{106} are independently $-\text{O}-\text{C}_1-\text{C}_{12}\text{alkyl}$, $-\text{O}-\text{C}_3-\text{C}_{12}\text{alkenyl}$, $-\text{O}-\text{C}_3-\text{C}_{12}\text{alkinyl}$, $-\text{O}-\text{C}_5-\text{C}_8\text{cycloalkyl}$, $-\text{O}-\text{phenyl}$, $-\text{O}-\text{naphthyl}$ or $-\text{O}-\text{C}_7-\text{C}_9\text{phenylalkyl}$; or

R_{106} and R'_{106} together form one of the bivalent groups $-\text{O}-\text{C}(\text{R}_{121})(\text{R}_{122})-\text{CH}(\text{R}_{123})-\text{O}-$, $-\text{O}-\text{CH}(\text{R}_{121})-\text{CH}_2-\text{C}(\text{R}_{122})(\text{R}_{123})-\text{O}-$, $-\text{O}-\text{CH}(\text{R}_{122})-\text{CH}_2-\text{C}(\text{R}_{121})(\text{R}_{123})-\text{O}-$, $-\text{O}-\text{CH}_2-\text{C}(\text{R}_{121})(\text{R}_{122})-\text{CH}(\text{R}_{123})-\text{O}-$, $-\text{O}-o\text{-phenylene}-\text{O}-$, $-\text{O}-1,2\text{-cyclohexyliden}-\text{O}-$,



R_{121} is hydrogen, $\text{C}_1-\text{C}_{12}\text{alkyl}$, COOH , $\text{COO}-(\text{C}_1-\text{C}_{12})\text{alkyl}$ or $\text{CH}_2\text{OR}_{124}$;

R_{122} and R_{123} are independently hydrogen, methyl ethyl, COOH or $\text{COO}-(\text{C}_1-\text{C}_{12})\text{alkyl}$;

R_{124} is hydrogen, $\text{C}_1-\text{C}_{12}\text{alkyl}$, benzyl, or a monovalent acyl residue derived from an aliphatic, cycloaliphatic or aromatic monocarboxylic acid having up to 18 carbon atoms;

G_6 is hydrogen and G_5 is hydrogen or $\text{C}_1-\text{C}_4\text{alkyl}$, and

G_1 , G_2 , G_3 and G_4 are methyl; or

G_1 and G_3 are methyl and G_2 and G_4 are ethyl or propyl or G_1 and G_2 are methyl and G_3 and G_4 are ethyl or propyl.